REMARKS

Rejection of Claims 1-2, 12, and 16-17 under 35 U.S.C. § 102(b) as being anticipated by US 5,923,650 (Chen)

Chen teaches a "backoff/headroom value α" that is a *constant fraction* (during all channel conditions) of the maximum transmit power. See Chen col. 18 lines 18-22 and col. 3 lines 36-42. If the maximum transmit power changes due to channel conditions, then the "backoff power" changes but *not* the "backoff value." For example, if α = 0.5 and the maximum transmit power is 200 mW, then the backoff power will be 100 mW. In a case where the maximum transmit power changes from 200 mW to 100 mW due to channel conditions, then the backoff power changes from 100 mW to 50 mW (but the "backoff value" α = 0.5 does not change). Therefore, the "backoff value" remains constant at 0.5 and only the "backoff power" changes (e.g., 100 mW to 50 mW) depending upon the changing maximum transmit power (e.g., 200 mW to 100 mW) which further depends on the channel conditions. Note that "α = 0.5 (3dB of backoff power)" in Chen col. 18 lines 21-22 is clearly a misnomer because power is not measured using dB; this "0.5" and "3dB" must refer to "backoff value" which is constant in Chen and does not depend on a communication channel variance condition as recited in claim 1.

Chen mentions "The transmit power of remote station 6 is backed off from the maximum transmit power to *maintain headroom*. The headroom allows the power control mechanism of remote station 6 *to adjust the transmit power* to combat changes in the channel condition and to account for variation in the transmission rate of the unscheduled tasks." See Chen col. 18 lines 9-14. Thus, Chen suggests *changing the transmit power, and not the headroom value*, in reaction to communication channel variations. In Chen, the phrase "maintain headroom," coupled with the fact that the headroom value α is constant in equation (4), shows that the headroom value is not changed. Chen's constant 3dB headroom value allows the power control mechanism to

adjust the transmit power. Chen predicts the maximum transmission rate based on the "headroom reduced" power level, which is the maximum power minus the backoff power. The headroom value (or backoff value α) is not a function of a channel condition, nor is it described as being adapted, changed, or altered. Thus as described by Chen, this value is a constant (3dB) amount of margin that allows the power control to react to channel conditions by up to this amount after the scheduling of the transmission. Whereas, Applicant suggests changing the headroom value based on the communication channel variance condition. See original specification page 4 lines 10-18. Therefore, Chen fails to show or suggest "establishing a headroom value based on the communication channel variance condition" as recited in independent claims 1, 12, and 16.

Claim 2 depends on claim 1, and claim 17 depends on claim 16, and thus these dependent claims are also not anticipated by Chen. Reconsideration and withdrawal of the rejection of claims 1-2, 12, and 16-17 under 35 U.S.C. § 102(b) as being anticipated by Chen is respectfully requested.

Rejection of Claims 3-4, 13-14, and 18 under 35 U.S.C. § 103(a) as being unpatentable over US 5,923,650 (Chen) in view of US 2003/0081627 (Bao)

Bao fails to overcome the deficiency of Chen in that Bao also does not show or suggest "establishing a headroom value based on the communication channel variance condition" as recited in independent claims 1, 12, and 16. Additionally, the data rate in Bao as described in paragraph [0031] is not determined based on a headroom value.

Thus, claims 3-4, 13-14, and 18 are not unpatentable over Chen and Bao. Reconsideration and withdrawal of the rejection of claims 3-4, 13-14, and 18 under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Bao is respectfully requested.

Rejection of Claims 5-6, 15, and 19 under 35 U.S.C. § 103(a) as being unpatentable over US 5,923,650 (Chen) in view of US 6,563,810 (Corazza).

Corazza, like Bao, fails to overcome the deficiency of Chen in that Corazza also does not show or suggest "establishing a headroom value based on the communication channel variance condition" as recited in independent claims 1, 12, and 16. As mentioned above, Chen modifies the headroom/backoff power and not the headroom value. Corazza uses a maximum power which is reduced by the headroom power to provide for power control variations. Corazza also suggest modifying the "headroom power" when the power level is low and not the "headroom value."

Thus, claims 5-6, 15, and 19 are not unpatentable over Chen and Corazza. Reconsideration and withdrawal of the rejection of claims 5-6, 15, and 19 under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Corazza is respectfully requested.

Rejection of Claim 7 under 35 U.S.C. § 103(a) as being unpatentable over US 5,923,650 (Chen) in view of US 7,023,822 (Czaja).

Czaja also fails to overcome the deficiency of Chen in that Czaja does not show or suggest "establishing a headroom value based on the communication channel variance condition" as recited in independent claims 1, 12, and 16.

Claim 7 depends indirectly upon claim 1 and thus is not unpatentable in view of Chen and Czaja. Reconsideration and withdrawal of the rejection of claim 7 under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Czaja is respectfully requested.

Rejection of Claims 8-11 under 35 U.S.C. § 103(a) as being unpatentable over US 5,923,650 (Chen) in view of US 2003/0002464 (Rezaiifar)

Rezaiifar also fails to overcome the deficiency of Chen in that Rezaiifar does not show or suggest "establishing a headroom value based on the communication channel

variance condition" as recited in independent claims 1, 12, and 16. Column 17 lines 54-63 of Chen merely note that power control must be performed on the reverse link. As stated previously, column 18 lines 9-20 of Chen propose a constant headroom value that is not based on a communication channel variance condition. Chen does not show or teach a base station "establishing a headroom value based on the communication channel variance condition" as recited in claim 7. Paragraphs [0095]-[0096] of Rezaiifar simply state that the maximum rate is a function of the current reverse rate added to the power headroom parameter divided by the energy-per-bit required.

Neither Chen nor Rezaiifar show or suggest "establishing a headroom value based on the communication channel variance condition" as recited in claims 1, 12, and 16 nor using a base station to establish the headroom value based on the communication channel variance condition as recited in claims 8-11. Reconsideration and withdrawal of the rejection of claims 8-11 under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Rezaiifar is respectfully requested.

Rejection of Claim 20 under 35 U.S.C. § 103(a) as being unpatentable over US 5,923,650 (Chen) in view of US 6,563,810 (Corazza) and US 2003/0081627 (Bao).

Claim 20 depends indirectly upon claim 16, and none of Chen, Corazza, and Bao (in any combination) show or suggest "means for establishing a headroom value based on the communication channel variance condition" as recited in claim 16. Thus, claim 20 is not unpatentable over Chen, Corazza, and Bao. Reconsideration and withdrawal of the rejection of claim 20 under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Corazza, and Bao is respectfully requested.

SUMMARY

The application is in condition for allowance and a favorable response at an early date is earnestly solicited. Should the Examiner have any questions, comments, or

suggestions, the Examiner is invited to contact Applicant's representative at the telephone number indicated below.

Please charge any fees associated herewith, including extension of time fees, to **Deposit Account 502117**.

Respectfully submitted,

By: /Sylvia Chen/ 08MAR2007

Sylvia Chen Date
Attorney for Applicant
Registration No. 39,633
Tel. No. (847) 523-1096
Fax No. (847) 523-2350
Email: Sylvia.Chen@motorola.com

Please send correspondence to:
Motorola, Inc.
Intellectual Property Dept. **(SYC)**
600 North U.S. Highway 45, W4-39L
Libertyville, IL 60048
Customer Number: 20280